CLAIM AMENDMENTS

1. (Currently Amended) A borehole caliper tool, comprising:

a tool body;

a proximity sensor;

~~an arm~~ a follower arm coupled to the tool body, the arm being deflectable relative to the tool body, the follower arm including a cam, having mass, coupled to reciprocate about a joint and facilitate a displacement of the mass away from the proximity sensor in response to rotation of the follower arm outwardly away from the tool body, with the proximity sensor being positioned to sense displacement of the mass and generate an output containing information concerning the deflection of the follower arm relative to the tool body~~;~~

~~a cam coupled to the arm such that a position of the cam changes as the arm deflects; and~~

~~a proximity sensor for sensing the position of the cam, wherein the position of the cam provides and indication of the deflection of the arm relative to the tool body~~.

2. (Currently Amended) The borehole caliper tool of claim 1, wherein a pivot joint is formed between the follower arm and the tool body.

3. (Original) The borehole caliper tool of claim 1, further comprising a bow spring coupled to the tool body.

4. (Currently Amended) The borehole caliper tool of claim 3, wherein a middle portion of the bow spring includes a pad for engagement with a surface of the borehole, with the pad being pivotally coupled to the cam.

5. (Currently Amended) The borehole caliper tool of claim 3, wherein the follower arm is coupled to the bow spring such that the follower arm deflects as the bow spring flexes.

6. (Currently Amended) The borehole caliper tool of claim 5, wherein a pivot joint is formed between the follower arm and the bow spring.

7. (Currently Amended) The borehole caliper tool of claim 6, wherein a sliding joint is formed between the follower arm and the bow spring.

8. (Original) The borehole caliper tool of claim 1, wherein the proximity sensor is a non-contact differential variable reluctance transducer.

9. (Currently Amended) The borehole caliper tool of claim 1, which comprises an additional follower arm and an additional proximity sensor with said follower arm and said additional follower arm defining a plurality of follower arms and said proximity sensor and said additional proximity sensor defining a plurality of proximity sensors, with each of said plurality of follower arms being coupled to the tool body~~, each said arm~~ and having a cam and [[a]] each of aid plurality of proximity ~~sensor for sensing the position of the cam coupled thereto~~ sensors positioned to sense displacement of the cam associated with one of said plurality of follower arms.

10. (Currently Amended) The borehole caliper tool of claim 9, wherein the tool body has a diameter associated therewith with the plurality of arms~~, cams~~ and proximity sensors are distributed about a diameter of the tool body.

11. (Currently Amended) A borehole caliper tool, comprising:
a tool body;
a pad for engagement with a surface of the borehole;
a proximity sensor; and
[[an]] a follower arm having a first end and a second end, the follower arm being coupled to the tool body at the first end to form a pivot joint defining a cam proximate thereto, with the second end being pivotally coupled to the pad, the cam having mass and being coupled to reciprocate about the pivot joint to facilitate a displacement of the mass with respect to the proximity sensor in response to contact of the pad with the surface, with the proximity sensor being positioned to

sense the displacement of the mass and generate an output containing information concerning the deflection of the follower arm relative to the tool body~~;~~

~~a cam coupled to the arm at the first end, the cam adapted to move as the arm moves relative to the tool body; and~~

~~a proximity sensor adapted to sense the position of the cam, wherein the position of the cam provides an indication of the movement of the arm relative to the tool body~~.

12. (Currently Amended) The borehole caliper tool of claim 11, further comprising a bow spring coupled to the tool body and the pad.

13. (Currently Amended) The borehole caliper tool of claim 12, wherein ~~a middle portion of the bow spring includes a pad for engagement with a surface of the borehole~~ the bow spring includes opposed ends coupled to the tool body, with the pad being coupled to the bow spring equidistant from the opposed ends.

14. (Original) The borehole caliper tool of claim 12, wherein the arm is coupled to the bow spring at the second end and adapted to move as the bow spring flexes.

15. Canceled

16. (Currently Amended) The borehole caliper tool of claim 15, wherein a sliding pivot joint is formed between the **[[arm]]** second end and the bow spring.

17. (Original) The borehole caliper tool of claim 11, wherein the proximity sensor is a non-contact differential variable reluctance transducer.

18. (Currently Amended) The borehole caliper tool of claim 11, which comprises an additional follower arm and an additional proximity sensor with said follower arm and said additional follower arm defining a plurality of follower arms and the proximity sensor and said additional proximity sensor defining a plurality of proximity sensors with each of the plurality of follower arms being coupled to the tool body~~, each said arm~~ and

having a cam and [[a]] each of the plurality of proximity ~~sensor for sensing the position of the cam coupled thereto~~ sensors positioned to sense displacement of the cam associated with one of said plurality of follower arms.

19. (Currently Amended) The borehole caliper tool of claim 18, wherein the plurality of follower arms ~~arms, cams~~ and proximity sensors are distributed about a diameter of the tool body.

20. (Original) The borehole caliper tool of claim 11, wherein the arm is rigid.

21. (Currently Amended) A method for gauging a diameter of a borehole having a longitudinal axis extending transversely to the diameter, the method comprising:

~~deploying~~ moving a tool body ~~carrying~~ having a proximity sensor and an arm assembly ~~in the borehole~~ along the longitudinal axis, the arm assembly comprising [[an]] a follower arm ~~extending between a surface of the borehole and the tool body and deflectable~~ reciprocally attached to the tool body to undergo rotational movement ~~relative to the tool body~~ as the diameter of the borehole changes, the follower arm having a cam ~~coupled thereto such that a position of the cam changes as the arm deflects~~ including mass; and

monitoring ~~the position of the cam using a proximity sensor~~ displacement of the mass from the proximity sensor as the tool body moves along the longitudinal axis to determine the magnitude of the bore diameter based upon a magnitude of said displacement, with the magnitude of the displacement being inversely related to the bore diameter~~; and~~

~~translating the position of the cam~~.